

REMARKS

Claim 28 above has been returned to its “original” state, the previous Office action response printed Claim 28 as a duplicate of Claim 27. Neither Claim 27 or 28 has been amended in any of the previous Office action responses or Briefs.

The Examiner rejected Claims 1-4, 7-9, 14-29, 31-33, and 36-40 under 35 U.S.C. 103(a) as being unpatentable over US 6,907,557 to Perez, *et al* (hereafter "Perez") (incorporating by reference US 6,401,220 to Grey, *et al* (hereafter "Grey") in view of US 6,449,741 to Organ, *et al* (hereafter "Organ"). Applicant traverses the rejection.

With respect to Claims 1 and 21, the Examiner states that Perez/Grey disclose all the limitations except for requiring that **the user is prevented from modifying the measurement process other than through the user-defined variation function**. The Examiner states that Perez does teach preventing the user from modifying the measurement process **through particular sequences**, (col. 4, lines 49-63 and col. 10, line 57 to col. 11, line 14). The Examiner looks to Organ for teaching that the operator is allowed to “selectively control modification of the test by preventing the user from modifying the test/measurement process/program (col. 13, lines 30-32 and col. 14, lines 13-17)”. The Examiner maintains that it would have been obvious to modify Perez to prevent the user from “modifying the measurement process through the source code, thereby only allowing the user to modify the measurement process when desired (i.e. programmed) by the designer, as taught by Organ” in order to “insure that only those authorized can edit the source code of the program (Organ; col. 13, lines 30-32 and col. 14, lines 13-17) and thereby reduce the chance of a user improperly editing the program, as is recognized as being a problem by Perez (Perez; col. 10, line 57 to col. 11, line 14)”.

Applicant submits combining the teachings of Perez/Grey and Organ as suggested by the Examiner would not satisfy the limitations of Claims 1 and 21.

First, Applicant disagrees with the Examiner’s reading of Organ as teaching that the user is prevented from “modifying the measurement process through the source code, thereby only allowing the user to modify the measurement process when desired”.

Applicant submits that the first passage of Organ cited by the Examiner simply teaches that there is a choice of user modes between production mode and engineer mode. Other passages in Organ make it clear that the “engineering mode” encompasses access to simulation aids (col. 6 lines 8-11), the ability to create a test program out of test objects (col. 11, lines 20-22) and to make changes to the source code for the test methods (col. 12, lines 28-32), aids to develop, fine tune, and debug the test program (col. 16, lines 16-19; col. 18, lines 1-10), and signal control options for testing the DUT (Figure 23 and col. 29, lines 61-67). The only details provided regarding the “production mode” are that it allows for the specification and control of operator variables, such as test temperature (col. 14, lines 19-22). Applicant submits that the only type of user who is **prevented** from “modifying the measurement process through the source code” is the production mode user, who is also clearly **not allowed** “to modify the measurement process when desired”.

The Examiner argued in response to Applicant’s communication dated 4/17/2007 that modification **is** permitted in the production mode taught by Organ since the “production operator is still allowed to modify the test by controlling operator variables”. Applicant responds that the control of operator variables is distinctly different from modifications **through the user-defined variation function**, as required by Claims 1 and 21.

The second passage of Organ cited by the Examiner teaches that operator tool 160 can be set to “prevent unauthorized access to the tools that allow modification of a test program”. Applicant submits that preventing unauthorized access to the tools is **not equivalent** to preventing modification of the measurement process “other than through the user-defined variation function”. The prevention of unauthorized access simply safeguards the software system of Organ from possible damage by one category of user. However, preventing modification of the measurement process except for one very specific type of modification involving the user-defined variation function safeguards the core of the software system from **any** user while simultaneously allowing that user to make significant changes within defined bounds. Claims 1 and 21 specifically require this latter type of prevention.

The Examiner points to Perez (col. 10, line 57 to Col. 11, line 14) as teaching “the desirability of reducing the chance of a user improperly editing the program”. Applicant submits that the improper editing discussed in this passage does not make an exclusion in the

case of the type of modification that is carried out through the user-defined variation function, as required by the Claims.

Hence, Applicant submits that neither Perez/Grey nor Organ teach the Claim limitation allowing modification of the measurement process through a user-defined variation function and preventing modifying the measurement process other than through the user-defined variation function.

The Examiner admits this, but asserts that the limitation in question “is met by the combination of references, specifically with Perez disclosing the modification of a measurement process by a user and Organ teaching allowing the user to modify the measurement process when desired (i.e. programmed) by the designer while still preventing the user from modifying the measurement process otherwise”. Applicant submits that at best the combination of the references would result in a measurement process that can be extensively modified, even at a source code level, by one type of user, while a second type of user is prevented from making any modifications except for setting operator variables. This does not satisfy the limitation in question, which requires **only** those modifications made **through a user-defined variation function** to be allowed.

With reference to Claim 21, the art cited by the Examiner does not provide an executable measurement process that calls a user function. The systems identified by the Examiner involve the user providing a routine that is compiled and becomes part of the executable variation of the measurement process.

Hence, Applicant submits that the Examiner has failed to make a *prima facie* case for obviousness with respect to Claims 1 and 21 and the Claims dependent therefrom.

The above amendment to Claim 1 makes it clear that the user variation function is bound to the program after the computer program specifying the measurement protocol is compiled to an executable form. This limitation further differentiates the present invention from that in the cited art. The systems cited by the Examiner in Grey and Perez at best provide a scheme in which the user writes a module that is compiled with the remainder of the program and the function calls are bound at that time. Such a system requires that the

designer provide the user with a source code or some intermediate code, and hence, the user could gain insight into the source code.

With respect to Claim 2 and Claim 31, the Examiner maintains that Grey (col. 13, lines 7-15) discloses that the process modification software module further comprises an interface servicing element. Applicant must disagree. The cited passage states that the overall measurement system provides runtime interfaces to certain standard packages such as Labview. However, the passage does not teach that the module provided by the user is accessed by such an interface. Accordingly, there are additional grounds for allowing Claim 2, 31, and the claims dependent therefrom.

With respect to Claims 7 and 36, the Examiner maintains that Grey (col. 13, lines 7-30) teaches that the interface is determined by the user and is identified and passed to the measurement process. The cited passage teaches that the user can re-write part of the operating system to provide a user interface in place of the standard invoices that come with the system taught in Grey. However, there is no teaching that the identity of the user interface is passed into the measurement process application. Furthermore, since Grey teaches that the new interface is part of the measurement process, there is no need to pass the identity of the user function into the process. Hence, there are additional grounds for allowing Claims 7 and 36.

Claims 19 and 20 depend from Claim 1 and additionally require that each of a plurality of variation points in the computer program be associated with one of a plurality of user-defined functions in the process modification software module. Claim 38 likewise requires a plurality of user-generated variation functions. The Examiner points to Grey col. 13, lines 16-25 as providing this teaching. Applicant submits that while this passage mentions the possibility of “multiple concurrent executions” and breakpoints, there is no teaching regarding the association of each of a plurality of variation points with one of a plurality of user-defined functions as specified in the Claims. In this regard, it should be noted that a break point turns control of the program to a user, not to a user supplied function that was bound to the software in question. Hence, Applicant submits that there are additional grounds for allowing Claims 19, 20, and 38.

With respect Claim 39, the Examiner maintains that Perez teaches that function calls are in the instruction code and hence it is inherent that the designer of the instruction program has anticipated that the user may want to interact with or modify the measurement process. The function calls provided by the user in the portion of the system written by the user are not provided by the designer at points at which the designer determined that a user might want to modify the process. Since the system allows the user to write part of the test system, the designer did not provide the calls and further could not prevent the user from providing such calls in the portion written by the user. Accordingly, Applicant submits that there are additional grounds for allowing Claim 39.

The Examiner rejected Claims 5, 6, 10-13, 34 and 35 under 35 U.S.C. 103(a) as being unpatentable over Perez in view of Organ and further in view of US Patent Application 2002/002 6514 to Ellis, *et al* (hereafter “Ellis”). Applicant traverses the rejection.

The Examiner states that the combination of Perez/Grey and Organ disclose all the limitations of the Claims except for requiring that the measurement and process modification be carried out using two separate computers communicating using a Simple Object Access Protocol or Common Object Request Broker Architecture protocol. The Examiner looks to Ellis for the missing teachings.

As noted above with respect to Claims 1 and 21, from which these Claims depend, Applicant submits that the combination of Perez/Grey and Organ does not teach the limitation allowing modification of the measurement process through a user-defined variation function and preventing modifying the measurement process other than through the user-defined variation function. Ellis does not provide the missing teachings.

Hence, Applicant submits that the Examiner has failed to make a *prima facie* case for obviousness with respect to Claims 5, 6, 10-13, 34 and 35.

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Calvin B. Ward".

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